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## TREATMENT OF SYPHILIS.

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Read before Medical Society County of Kings, October 17, 1893.





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In taking up for consideration the subject of the treatment of syphilis, it may be interesting to notice the results where no specific medication is given.

The experiment has been tried of watching the course of the disease, in syphilitic patients, through various stages, without administering mercury or iodide of potash. These observations demonstrated that the lesions in many of the cases showed a definite tendency to recover, but with far less rapidity than in similar cases under treatment. In others, however, the lesions did not disappear till specific treatment was begun. In the light of this experience we may say that syphilis in certain individuals is a self-limited disease, that in others it tends to become chronic, with a marked tendency to relapses, that all cases are benefited and many cured by treatment.

The specific medicinal treatment of syphilis consists in the administration of mercury or iodide of potash, depending upon the stage of the disease and the character of the lesions.

The first question which arises is, How soon should the administration of mercury be commenced? The practice has varied with different physicians, some using it as soon as the initial lesion is seen, others waiting until the secondary rash appears.

It is now known to be impossible to abort the disease by the early administration of a mercurial, and in Vienna, where cases have been treated in this way, Dr. Ehrmann states that the effect of the administration of a mercurial before the rash appears, is to postpone its appearance for weeks or months, and that it has seemed to him that cases treated in that way ran a less favorable course and were more subject to grave tertiary lesions than the others which were treated differently.

It may be stated as a general rule that the administration of mercury should not be begun until the appearance of the

eruption, or at least until an absolute diagnosis of syphilis has been made.

The explanation of the curative action of mercury is still a matter of doubt. We know that in small doses it is a tonic, increasing the number of red-blood corpuscles, while in large doses it destroys them, but that fact is not sufficient to explain its action in syphilis. It is highly probable that its beneficial effects are due to its germ-destroying capabilities.

The methods of administration are numerous, depending upon the custom of the country or the necessities of the case.

Inducing a high degree of salivation intentionally and with rapidity is no longer in vogue, as, aside from the unpleasant effects of salivation, more benefit is derived from the administration of moderate doses of mercury, either continuously or intermittingly, for a number of months.

The so-called intermittent plan of treatment consists in carrying the mercurial preparation, which may be selected, to the point of toleration, as shown by slight sponginess and swelling of the gums and a coppery taste in the mouth, and continuing for two to three months. The treatment is then stopped for two months and begun again. Intermissions alternating with active treatment are kept up for from two to four years.

The preparations of mercury which may be used are the bichloride or protiodide and calomel.

The method which is most used in this country, and which seems to give the best results, besides being convenient and easily employed is the so-called tonic treatment of Dr. Keyes. He selects the protiodide pill, beginning with three a day and increasing until griping and diarrhœa are produced. The full dose is the amount which can be given just short of producing these symptoms. The full dose is continued until the disappearance of the rash and mucous patches when it is reduced by one-half. The patient continues with this half dose unless a relapse occurs, in which case he takes his full dose till the symptoms have again disappeared; he then returns to the half dose, which he continues to the end of his treatment, unless another relapse takes place.

Medication is continued for a period varying from two and a half to three years.

Patients treated in this way are almost entirely free from the serious later lesions of bones, nerves, and viscera. J. William White and Taylor suggest that in order to obtain the full benefit from a mercurial course, it is necessary that the gums should show the constitutional effects of the drug by slight increase of salivary flow, sponginess, and tenderness.

In some cases abnormal irritability of the intestinal tract will produce a diarrhoa and prevent the absorption of a quantity of protiodide of mercury sufficient to produce these symptoms. In other cases, although apparently well tolerated, the long-continued use of the protiodide may interfere with its proper absorption after a time. In order to obviate this, White stops his internal medication after three months and directs his patient to use inunctions for two weeks, thus giving the stomach complete rest. The treatment then alternates between inunctions and internal medication for a period of two years, after which time he uses iodide of potash.

The plan of treatment by the inunction of mercural ointment has advantages, in certain cases, over every other method. Where a prompt and decided effect is desired, as in those instances where an important organ, the eye or brain, for example, is threatened with destruction, the disease can be controlled by inunction more quickly and surely than in any other way. In gummata of important organs it is also necessary to combine iodide of potash in large doses, even as high as 500 grains per diem, with the mercury, and the combination of the two therapeutic agents will act favorably, when either used alone would be too slow to be effective.

The remedy is applied by taking a piece of mercurial ointment of the size of a walnut and rubbing it into the skin on successive days, beginning on the first day with the flexures of the knees, on the second day the inner part of the thigh is rubbed, on the third the abdomen and breast, on the fourth the arms, and on fifth the forearms. The patient takes a bath on the sixth day and begins with the same routine again on the seventh day.

In an ordinary case of syphilis treated in this way a sufficient number of inunctions are made to cause the disappearance of the rash, and other courses of inunction are made at intervals during the progress of the disease.

In Germany and Austria the inunction plan is the routine method of treatment for most cases of syphilis, its chief advantage being that it acts promptly, and that the stomach is not disturbed, thus allowing the patient to assimilate the maximum quantity of food.

The mercury is deposited in the follicles of the skin and can be found in the urine for months after the inunctions have ceased. The patient is thus practically subjected to the continuous plan of mercurial treatment.

Fumigations of calomel are a useful adjunct to the internal administration of mercury and easy of application. The patient is wrapped in a blanket and seated on a cane-bottomed chair; a pan of boiling water is placed under the chair and the patient is steamed a quarter of an hour. Thirty grains of calomel are then fumigated on a tin stand over a spirit-lamp under the chair and the patient is surrounded by the fumes half an hour. Fumigation is employed once a day until the gums are touched and then once in two to four days.

It is particularly useful to supplement the internal treatment in the cases of extensive ulcerating, suppurating early lesions. In instances where I have used it, I have observed that the lesions upon the body which were exposed to the fumes were healed much more rapidly than those on the face, which of course, was left free.

The hypodermic injection of mercury as originated by Lewin, although efficacious, is open to the objections of the pain of the needle puncture and the danger of abcess, and although used in some German clinics it has not found much favor in this country.

The administration of mercury, although carefully observed, is often attended with unpleasant consequences, the most frequent of which is salivation. This may come from a small dose, and I believe that many of these cases may be explained by a condition of functional inactivity of the liver. Griping and purging often follow the use of small doses of protiodide, and these cases will generally bear the bichloride of mercury quite well.

A certain class of patients show that their dosage is extreme by anæmia, general malaise, and debility. It is often a difficult question to decide whether this condition is due to the disease or the drug. When dependent upon the administration of mercury the dose must, of course, be lessened.

Iodide of potash is of great importance in the treatment of late lesions, as mercury in the early stages of syphilis.

Its action is to cause the absorption and disappearance of the growths made up of the small round-celled, new formations in the form of diffuse infiltration or gummata, whether situated in the skin, bones, membranes, arteries, or viscera. It also causes to be set free any mercury which may be deposited in the tissues of the body.

The iodides have but little curative agency in the treatment of early syphilis, and even when used later in the disease it is necessary that mercury should be given either before or afterwards in order to prevent a relapse.

The dosage of iodide of potash varies from fifteen grains to two ounces per diem, and a saturated solution is a convenient form for its administration, beginning with from ten to twenty grains at a dose and rapidly increasing until the lesions begin to disappear. The only rule for the size of the dose is the effect attained, and while in one individual thirty grains a day may be enough, another patient with a vital organ badly damaged may require an ounce or more continued for days until the lesion has disappeared. As already stated, the rapidity and certainty of iodides in grave visceral disease are greatly increased by using mercury at the same time, preferably by inunction.

When iodide of potash disagrees with the stomach it will be better tolerated when given in a small quantity of milk which has been coagulated by Fairchild's essence of pepsin.

Dr. Keyes has used it per rectum dissolved in beef tea, but the rectum soon becomes intolerant and rejects it. Drinking one or two goblets of warm water afterwards will sometimes enable patients to retain it, or it may be given in starch water. In cases where the idiosyncrasy is so marked that it cannot be given at all, mercury by inunction may be used or the preparation known as Zittmann's decoction, which is composed of a number of vegetable bitters and a small quantity of mercury. In certain intractable cases of syphilis which have not responded to mercury and iodides this preparation has done good service and a trial should always be made of it before pronouncing a case hopeless.

Frequent unpleasant occurrences resulting from the use of iodides are coryza and an eruption which may be acneform, erythematous, bullous, or purpuric, or a general weakness and malaise. These symptoms are less apt to occur if the kidneys eliminate well, and indeed, it is an important point in the administration of the iodides when given in large doses to ensure an abundant secretion from the kidneys by administering diure-

tics if necessary. Keyes considers an increased flow of urine as an indication that the tolerance of the patient will be great and the good effects of the drug well marked.

The mixed treatment consists in the administration of mercury combined with the iodide of potash in moderate doses.

It is used to produce the disappearance of the intermediary lesions of syphilis occurring six months or more after inoculation.

Many patients, especially those treated in private practice, never show any further symptoms after the disappearance of the secondary eruption, and the exhibition of iodides as a routine plan of treatment is a measure of individual preference.

J. William White states that after the second year there is an excess of cell growth and accumulation, and as stimulation of the lymphatics becomes the prime indication, iodide meets it better than any other drug. He accordingly gives iodide of potash in moderate doses for a period of six months after two years of mercurial treatment, even though no lesions are to be observed.

In cases which present themselves for advice at hospitals, inattention to treatment and a bad condition of health are apt to lead to relapses.

The fissures and ulcerations of the mouth, scaly and tubercular eruptions, superficial ulcerations of the skin and larynx are not of the purely gummatous type calling for iodides, and yet mercury alone would be insufficient to relieve them. Under the mixed treatment they disappear with gratifying rapidity. The majority of cases, when the mixed treatment is indicated, demand tonics as well, for we may consider the expression of the syphilitic poison as an indication of depreciated resisting power.

I think that in speaking of these cod-liver oil should be placed in the front rank. It is especially applicable to those patients who have become greatly reduced in weight where the indication is to improve nutrition and make fat, and cases of this character will be markedly benefited by it.

In persons in which the disease has diminished the nervous energy, and consequently the blood-making capabilities of the body, the combination of the mixed treatment with iron, arsenic, and strychnia as advised by Dr. Sherwell is most useful. Erythroxylon coca, used with mercury and iodide, is highly recommended by Dr. Taylor for its properties as a restorative of the vital powers in broken-down persons suffering with the results of

the syphilitic cachexia, and as a substitute for alcohol in intemperate individuals.

As syphilis is a depressing disease, destroying the red-blood corpuscles, it is highly important to place our patient in the best hygienic surroundings in order that he may successfully cope with its debilitating effects.

The condition of food, dwellings, work, clothing, tobacco, and stimulants should be inquired into and appropriate advice given.

The state of the mouth should be carefully looked after before beginning a mercurial course. Teeth with caries, irregular edges, and deposits of tartar about the roots will show evidences of ptyalism much sooner than if they were in a healthy condition.

With regard to the question of climate it has been observed. particularly in the case of sailors, that patients do better in a warm than in a cold climate.

The hot springs of Arkansas have acquired a great deal of renown in the treatment of cases of syphilis, both recent and old.

The water, which contains but a small proportion of mineral substance, has the peculiarity of having a temperature of 140° as it comes from the earth, and has no direct influence upon the disease.

Patients while drinking it, through its diuretic and diaphoretic action are enabled to tolerate larger doses of mercury and iodides, and cases of inveterate syphilis who go there are benefited because their tolerance is increased, whereas if they remained at home they could not take sufficiently large doses to control their symptoms.

The local treatment of syphilides as a rule is not necessary, since internal medication will cause their disappearance. This will be materially hastened in many cases by the application of a mercurial ointment or plaster and is particularly desirable in lesions situated upon the face. The preparations used for this purpose are the white precipitate, blue ointment, oleate of mercury, and mercurial plaster. The mercurial plaster as used by Pick and modified by Klotz, consists of equal parts of mercurial plaster and compound soap plaster, containing Diachylon ointment and soap plaster of each forty parts, vaseline fifteen parts, and salicylic acid five parts, and is a very convenient local application for all syphilides.

In certain cases of long-standing and obstinate tubercular or ulcerative lesions, internal treatment is greatly aided by local applications.

Moist papules should be kept dry with a dusting powder of calomel and covered with absorbent cotton.

A patient with ulcers of the mouth should use a mouth wash of chlorate of potash, myrrh, and carbolic acid, or the ordinary black wash consisting of calomel and lime water, as suggested by Harrison Allen, has worked well in my hands. In addition the ulcers should be touched with acid nitrate of mercury or nitrate of silver.

Old ulcers of the leg which do not heal under the use of iodides in excess, or the mixed treatment, may need curetting, strapping, incision of the edges, or the application of balsam Peru in combination with a local mercurial.

The initial lesion or chancre requires but little treatment aside from cleanliness. An absorbent powder of calomel, aristol, or iodoform is usually sufficient.

In cases where the induration is excessive its absorption is hastened by the mercurial plaster, but more or less induration usually remains until the patient has been subjected to internal mercurial treatment for some time.

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